

Remarks/Arguments

Reconsideration of this application is requested.

Extension of Time

A request for a one month extension of the period for response to the office action mailed on April 13, 2005 is enclosed. The extended period for response expires on August 15, 2005.

Title

The title is objected to as not clearly indicative of the invention to which the claims are directed. In response, the title is amended to --Variable Clock Rate Analog-to-Digital Converter--. As discussed below, since applicant does not believe the inventive subject matter to be limited to the use of a delay locked loop, this portion of the suggested language has not been included in the amended title.

Claim Status

Claims 1-21 were presented. Claims 1-3, 5, 10-16 and 18 are amended and claims 4 and 17 are canceled, without prejudice. Thus, claims 1-3, 5-16 and 18-21 are now pending.

Allowable Subject Matter

The indication of allowable subject matter in claims 3, 5, 6, 13 and 17 is noted and appreciated. Claim 3 is rewritten in independent form to include all limitations from base claim 1, from which it directly depends. Claim 5 is rewritten in independent form to include all limitations of base claim 1 and intervening claim 4. Claim 4 is incorporated into amended claim 5 and is therefore canceled, without prejudice. Claim 13 is rewritten in independent form to include all limitations of base claim 11, from which it directly depends. Claim 16, from which claim 17 directly depends, is rewritten to include all limitations of claim 17. Claim 17 is incorporated into claim 16 and is therefore canceled, without prejudice.

In view of these amendments, claims 3, 5, 6 (which depends from allowable claim 5), 13 and 16 are now in allowable form.

Claim Rejections – 35 USC 102(b)

Claims 14 and 15 are rejected under 35 USC 102(b) as anticipated by Gross (US 6,154,164). In response, claim 14 is amended to clearly distinguish over Gross.

As depicted in Fig. 14, the present invention utilizes *a single* ADC internal clock 164 having cycles of different length within the single clock signal. As discussed in paragraph [83], since the clock signal itself is modified, minimal or no modifications to the ADC itself are necessary.

In contrast, Gross utilizes generates multiple clock signals 116, 118, 120 and 122 with different clock periods from a master clock signal 112 (col. 2, lines 9-14). A successive approximation circuit 126 selects one of the multiple clock signals via a switch M and selector circuit 124. Thus, while the present invention uses a single clock signal having cycles of different lengths within that single signal, Gross uses multiple clock signals having different periods from each other. While each of the multiple clock signals may have different period, within any single one of the multiple clock signals, the cycles are of uniform (constant) length.

Claim 14 is amended to clarify this distinction and now recites:

providing a single internal ADC clock having at least two cycles of different lengths

Since Gross does not teach or suggest this feature, it cannot anticipate claim 14 or claim 15 dependent thereon. The rejections under 35 USC 102(b) should be withdrawn.

Claim Rejections – 35 USC 103(a)

Claims 1, 2, 4, 7-12, 16 and 18-21 are rejected under 35 USC 103(a) as obvious over the Admitted Prior Art (APA) in view of Gross. In response, independent claims 1, 11 and 18 are amended in the same manner as claim 14, and require the use of a single ADC clock signal having cycles of different lengths within that single signal. This feature is neither disclosed nor suggested by APA or Gross. Therefore the rejections under 35 USC 103(a) of claims 1, 11 and 18, and claims 2, 7-10, 12 and 19-21 dependent thereon, should be withdrawn.

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As discussed above, claims 4 is canceled since it is incorporated into allowable claim 5, and claim 16 is rewritten to include the limitations of allowable claim 17. The rejections of these claims are therefore moot.

Additional Amendment

Claim 10 is also amended to correct a misspelling of the word "appliance".

Conclusion

This application is now believed to be in condition for allowance. The Examiner is invited to telephone the undersigned to resolve any issues that remain after entry of this amendment. Any fees due with this response may be charged to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

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